

- (3.) *Slowing of the Respiratory Rhythm.*—The area which, when excited, caused slowing of the respiratory rhythm lies over the continuation of the postero-median column, as it separates from the column of the opposite side, and the part of the floor of the ventricle close to the inner border of the column. The central point of this small area lies between 1 and 2 mm. from the calamus, and between 2 and 3 mm. from the middle line.

Cardio-inhibition.—Whilst cardio-inhibition may be produced all over the floor of the 4th ventricle, as well as just behind the calamus, yet it is best marked both in the frequency of occurrence and in the amount of slowing over the posterior third of the 4th ventricle, and over the inner margin of the continuation forwards of the postero-median column.

Blood-pressure. (1) *Fall.*—The chief depressor area is in the hinder part of the floor, between 1 and 4 mm. in front of the calamus.

(2) *Rise* (cat only).—A rise was produced most frequently and most largely from 4 mm. from the calamus forwards to the anterior end of the ventricle.

These conclusions are exhibited graphically by maps of the ventricle, shaded in various degrees to indicate the intensity of the result; and a number of tracings are appended as illustrations of the actual changes which were produced by excitation.

The author concludes with a summary of some clinical applications of this research, as well as of the previous one on "Intracranial Pressure," which forms the subject of a paper in this year's 'Phil. Trans.' by the author and Mr. Horsley.

IX. "Contributions to the Chemistry of Chlorophyll. No. IV."

By EDW. SCHUNCK, F.R.S. Received June 16, 1891.

(Abstract.)

This paper is a continuation of the previous ones on the same subject. After describing the action of caustic alkali in a state of fusion on phylloeyanin and the products thereby formed, the author proceeds to give an account of phylloxanthin, the substance formed along with phylloeyanin by the action of acids on chlorophyll. This is followed by a description of the change which chlorophyll undergoes by the action of alkalis, and of the chief product thereby formed, which the author names *alkachlorophyll*.

- X. "On some Histological Features and Physiological Properties of the Postoesophageal Nerve Cord of the Crustacea." By W. B. HARDY. Communicated by Dr. GASKELL, F.R.S. Received June 17, 1891.

[Publication deferred.]

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